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CHICAGO RIVER BASCULE BRIDGE,
OUTER DRIVE
I&M Canal National Heritage Corridor
Outer (Lake Shore) Drive,
crossing the Chicago River
Chicago
Cook County
Illinois

HAER No. IL-54

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD
CHICAGO RIVER BASCULE BRIDGE, OUTER DRIVE
I&M Canal National Heritage Corridor

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Location: I & M Canal National Heritage Corridor
Outer (Lake Shore) Drive crossing the
Chicago River
Chicago, Cook County, Illinois

UTM: 16 E.449060 N.4637380
Quad: Chicago Loop

Date of Construction: 1929, 1937

Designer: Hugh E. Young, Chicago Plan Commission,
and Strauss Engineering Company

Builder: Substructure, American Bridge Company

Superstructure, Ketler and Elliot
Company

Present Owner: City of Chicago

Present Use: Bridge

Significance: At the time of its completion in 1937,
the Outer Drive Bridge was the longest
and widest bascule bridge in the world.

Project Information: The Illinois and Michigan Canal was
designated a National Heritage Corridor
in 1984. The following year HABS/HAER
embarked on an extensive inventory and
documentation project of the 100 mile-
long corridor. Field work for this
project was concluded in 1988. Final
editing of the documentation was
completed in 1992.

Historians: Charles Scott, Frances Alexander, and
John Nicolay, 1986.

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The Outer Drive Bridge was planned by the Chicago Plan Commission with Hugh E. Young serving as consulting engineer, designed by the Strauss Engineering Company, fabricated by the American Bridge Company, and erected by the Ketler and Elliot Company. Although the bridge foundation was built and the steel delivered, construction was stopped because of lack of funds and the onset of the 1929 depression. The bridge was finished and placed in operation in 1937 after the Works Progress Administration contributed the funds to complete the construction. Upon completion, the Outer Drive bascule bridge was the longest and widest double-leaf bascule bridge in the world. The trusses were fabricated with silicon steel sections and the bridge decking contained carbon steel. With the addition of a lower deck, each 6,240 ton leaf was heavier than any bascule in existence. In describing the Outer Drive bascule bridge, the Engineering News-Record declared, "In both its design and construction it is a notable structure."

The Outer Drive Bridge connects the north and south lake front boulevards. The bridge is a double-deck, double-leaf, fixed-counterweight, trunnion bascule bridge. The main span measures 264'-0" between the trunnions and has a clear span of 220'-0"; width of bridge measures 108'-0". Superstructure is steel construction, trusses contain riveted gusset-plate connections. The bridge contains four bridge tender's houses rising above the pylons. Each is identical in design, measuring 28'-0" x 24'-0" in plan, with ornamental pilasters. Concrete piers and abutments are faced with stone. Southern approach is a 2,500'-long viaduct. When built, the approach of the viaduct from the South made an "S" curve along the lines of Lake Shore, Whacker Drive, and the Outer Drive. However, the route was re-aligned in 1987. Northern approach is a 1,200'-long viaduct and a 100' bascule bridge across the Michigan Canal (Ogden Slip). The span crossing the Michigan Canal is a double-deck, single-leaf bascule, measuring 96'-6" between trunnions and has a clear span of 70'-0". Its width is also 108'-0". The superstructures of the viaducts are supported on steel bents.

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SOURCES:

"A Record Size Bascule," Engineering News-Record, v. 118 (April 22, 1937): 583-587.

"Chicago Gets Added PWA Funds for Outer Drive Completion," Engineering News-Record, v. 115 (December 5, 1935): 795-796.

"Continuous Girders Top Rigid Frame Viaduct Bents," Engineering News-Record, v. 118 (May 6, 1937): 671-673.

"Lakefront Boulevard Link Forms Milestone in Chicago Plan," Engineering News-Record, v. 118 (April 15, 1937): 546-548.